LIQUID LEVEL SENSING ASSEMBLY AND METHOD FOR MEASURING USING SAME

ABSTRACT

A sensing assembly senses a level of a liquid in a reservoir. The sensing assembly includes a first input port for receiving a first input voltage signal. The sensing assembly also includes a second input port for receiving a second input voltage signal. An excitation circuit is electrically connected to the first and second input ports for receiving the first and second input voltage signals and for generating a first excitation signal and a second excitation signal. A receiving circuit is disposed adjacent the excitation circuit and defines a variable capacitance with the excitation circuit. The receiving circuit produces an output voltage variable with the level of the liquid in the reservoir due to capacitance changes between the excitation circuit and the receiving circuit. The receiving circuit includes a first receiving electrode extending through a sine wave form and a second receiving electrode extending through a cosine wave form. The capacitance changes are due to dielectric changes created by the presence of the liquid adjacent at least a portion of the sensing assembly.